

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
26 May 2005 (26.05.2005)

PCT

(10) International Publication Number  
**WO 2005/047331 A3**

(51) International Patent Classification<sup>7</sup>: **C07K 16/28**,  
A61P 35/00

(21) International Application Number:  
PCT/US2004/037242

(22) International Filing Date:  
4 November 2004 (04.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/518,166 7 November 2003 (07.11.2003) US

(71) Applicant (*for all designated States except US*): **IM-  
MUNEX CORPORATION** [US/US]; One Amgen Center  
Drive, Thousand Oaks, CA 91320-1799 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **CARTER, Paul J.**  
[US/US]; 4312 - 86th Avenue S.E., Mercer Island, WA  
98040 (US). **ZHOU, Hongxing** [CN/US]; 6324 - 151st Av-  
enue S.E., Bellevue, WA 98006 (US).

(74) Agent: **MACHIN, Nathan A.**; 1201 Amgen Court West,  
Seattle, WA 98119-3105 (US).

(81) Designated States (*unless otherwise indicated, for every  
kind of national protection available*): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (*unless otherwise indicated, for every  
kind of regional protection available*): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,  
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments*

(88) Date of publication of the international search report:  
3 November 2005

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(54) Title: ANTIBODIES THAT BIND INTERLEUKIN-4 RECEPTOR

(57) Abstract: The present invention relates to antibodies that bind to the IL-4 receptor, fragments, muteins, and derivatives of such antibodies, nucleic acids encoding such antibodies, fragments, muteins and derivatives, and methods of making and using such anti-  
bodies, fragments, muteins, derivatives and nucleic acids. Methods for treating medical conditions induced by interleukin-4 involve  
administering an IL-4 receptor binding antibody, or an IL-4 receptor binding fragment, mutein, or derivative of an IL-4 receptor  
binding antibody, to a patient afflicted with such a condition. Particular antibodies provided herein include human monoclonal anti-  
bodies. Certain of the antibodies inhibit both IL-4-induced and IL-13-induced biological activities.

WO 2005/047331 A3